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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,378	06/02/2000	JEAN-YVES SANCHEZ	032013-024	7406

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EXAMINER

ZALUKAEVA, TATYANA

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 08/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-14

Office Action Summary

Application No.

09/508,378

Applicant(s)

SANCHEZ ET AL.

Examiner

Tatyana Zalukaeva

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5,14,16,34 and 37-43 is/are pending in the application.
- 4a) Of the above claim(s) 14,37-39 and 43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,16,34 and 40-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1,2,4,5,14,16,34 and 37-43 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. Claim 1 has been amended to introduce optional attachment of salt.

New claim 40 recites the salt attached to the polymer, as a Markush group.

Applicants are either required to elect a single disclosed species from the lithium salts genera for the prosecution on the merits, or if Applicant states that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In this instance, if the examiner finds one of the species unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. Newly submitted claim 43 should be directed to a microporous membrane, as supported by the instant Specification, pages 16, 17 and if so would be directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the inventions would be related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as polymer electrolyte in batteries itself, as proven by the instant specification, and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants.

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Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 43 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

3. Applicants previously elected the specific copolymer, exemplified in Example 4, which is stated in Paper No.8, page 2. Example 4 of the instant Specification is a **methacrylonitrile (MAN)/ glycidyl Methacrylate copolymer.**

4. Claims 1, 2, 4, 5, 16, 29 34 and 40-42 are pending.

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Before the outstanding rejections are discussed, the following analysis of preamble to claims has been made:

- It is the Examiner's opinion that the preamble language **does not provide the antecedent basis for terms in the body of the claim.**
- It is the Examiner's opinion that the language of the body of the claim set out the complete invention.
- It is the Examiner's opinion that the preamble language merely provides a statement of purpose or intended use.

- It is the Examiner's opinion that the preamble language is not essential to understand **limitations and/or terms in the claim body.**

6. Claims 1, 2, 4, 5, 16, and 34 stand rejected under 35 U.S.C. 102(e) as being anticipated by Shiokawa et al (U.S. 5,800,914).

Shiokawa discloses a thermoplastic resin, which are methacrylonitrile copolymers, specifically methacrylonitrile-glycidyl (meth)acrylate copolymers are named in col. 5, lines 49, 50. Shiokawa further teaches that glycidyl (meth)acrylate imparts adhesiveness, **crosslinking properties** and heat resistance to polymers (col. 6, lines 28-30), thus inherently providing for three-dimensional polymers.

7. Claims 1, 2, 4, 5, 16, and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Ide et al (U.S. 5,258,234).

Ide discloses a thermal image transfer recording medium (abstract) comprising a copolymer methacrylonitrile (abstract) and a monomer (B) presented by formula (I) in the abstract wherein R2 represents a glycidyl group.

Examples of thus formed copolymers are presented in col.3, lines 31-54, wherein the copolymer of **methacrylonitrile and glycidyl (meth)acrylate** is expressly named in lines 43, 44, claim 10. The comonomers, such as glycidyl (meth) acrylate, according to Ide, promote crosslinking performance (col. 4, lines 13-16, 61-63), thus inherently providing three-dimensional characteristics to the resulting polymer.

8. Claims 1, 2, 4, 5, 16, and 34 rejected under 35 U.S.C. 102(b) as being anticipated by Labana et al (U.S. 3,873,493).

Labana discloses epoxyfunctional copolymers of acrylic monomers with glycidyl Methacrylate (abstract). Thus the copolymer disclosed in col. 1, lines 50-55 comprising methacrylonitrile, glycidyl Methacrylate and balance of methyl Methacrylate.

9. Claims 1, 40 and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 62219469.

JP'469 discloses a composition used to enhance the performance of a lithium battery and lengthen the life thereof, by using an electrolyte polymer, wherein at least one polymer is selected from a group of a homopolymer or copolymer of methyl or ethyl ester of acrylic acid, a copolymer of methyl or ethyl ester of acrylic acid and methyl or ethyl ester of methacrylic acid, polyvinyl alkyl ether and **polymethacrylonitrile**. The number average molecular weight of the polymer is about 5,000-200,000. The composition is generally about 5-45parts .wt. to 100 parts.wt. of a nonaqueous electrolyte composed of a nonaqueous solvent and a lithium salt (abstract) .The nonaqueous solvents are recited on page 367, right column third paragraph and are propylene carbonate and gamma-butyrolactone among others. Lithium salts are recited on page 367, left column, third paragraph, and are the slats of the instant claim 40.

10. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP'469

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JP' 469 does not specify the lithium halide salt, however clearly motivates a skilled artisan to use lithium halide by stating that any conventionally used Lithium salt is suitable for its invention. As structural similarities have been found to support a prima facie case of obviousness. See, e.g., *In re May*, 574 F.2d 1082, 1093-95, 197 USPQ 601, 610-11 (CCPA 1978), *In re Wilder*, 563 F.2d 457, 460, 195 USPQ 426, 429 (CCPA 1977) ; *In re Hoch*, 428 F.2d 1341, 1344, 166 USPQ 406, 409; *In re Druey*, 319 F.2d 237, 240, 138 USPQ 39, 41 (CCPA 1963), it would have been found obvious by a person skilled in the art that the teaching of a structural similarity and suggestion of conventionally used Lithium salts by JP'469 will be necessary to suggest selection of the claimed species or subgenus.

Response to Arguments

11. Applicant's arguments filed May 21, 2003 have been fully considered but they are not persuasive. The crux of Applicants arguments is in consideration of preamble as claim limitation. Applicants stet that claim 1 as currently amended now explicitly recites what was already implicit in the claim. This is not found persuasive, and even less weight is given to a preamble under current amendment to the claim. Current amendment to claim 1 states "comprises a polymer and a salt optionally attached to polymer...", thus allowing any other major ingredients in a composition, even in the major amounts. By doing such Applicants put even more apart the limitations of claim body "comprising a polymer", and its intended use as a polymer electrolyte in preamble.

A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976).

It is noted here that the preamble in composition claims recites a statement of intended use or purpose, and as a rule does not limit the scope of the claim, since the statements in preamble merely define the context in which the invention operates, DeGeorge v. Bernier, 226 USPQ 758,761, n.3 (Fed.Cir. 1985)

Detailed analysis of preamble is provided above in paragraph 5 of this Office Action.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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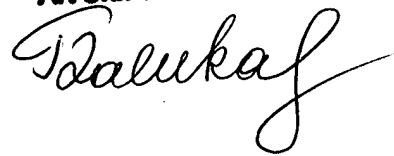
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tatyana Zalukaeva whose telephone number is (703) 308-8819. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703) 305-2450. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

**Tatyana Zalukaeva, Ph.D.
Primary Examiner
Art Unit 1713**



July 29, 2003